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The effectiveness of the Media Smart Program on promoting the critical thinking of children towards the use of celebrities in television advertising

Ana Filipa Veloso de Magalhães, nº439

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Abstract

The aim of this project was to try to prove the effectiveness of the Media Smart Program in Portugal, a program that helps children to understand and be critical towards advertising. Until now, there were no quantitative studies about this subject in Portugal. Therefore, it was used a structured questionnaire, semi-structured interviews and an Observation in Media Smart Classes. The results suggested that this program was not effective in a short period of time since children might not have time to absorb the entire program. So, future studies should have this point into account.

Key Words

Media Smart; Children; Advertising; Celebrity Endorsers

1. Introduction (Literature Review)

Today children are exposed to several types of media which could constitute a problem if they do not have the sensibility to analyze and understand the message transmitted in advertising. Therefore, **Media Smart, a Media Literacy training program, appeared to help children making responsible choices in their daily lives.**

Media Literacy is "The ability of a citizen to access, analyze, and produce information for specific outcomes" Aufderheide (1993: 6) and so a "media literate person (…) can decode, evaluate, analyze and produce both print and electronic media" Aufderheide (1993: 9). Although it was chosen one definition of Media Literacy, this concept has a broad definition with several applications, which lead to some controversies and conflicts among researchers (Hobbs, 1998).

Media Literacy education could lead to the protection of consumers, especially children, against the persuasive intent of communication (Eagle 2007, Armstrong and Brucks 1988; Kennedy 2004; Rogers 2002). In this line of thought, Buckingham (2005) noticed that researchers and educators found that **media messages, to be interpreted effectively, need to be taught and learned.** Thus, Media Smart Program (Exhibit 1) emerged aligned with this view since it is focused on children from seven to eleven years old and, its main goal is helping children to comprehend and interpret advertising messages.

Media Smart was firstly implemented in UK in 2002 and, as the results showed, it had an enormous success not only in UK but also in other European countries. **In Portugal, Media Smart was implemented on February of 2008**, and it is taught in 32,7% of all Portuguese schools (2242 schools; Media Smart Portuguese Web Site). This program is managed by APAN (Associação Portuguesa de Anunciantes), and it is supported by

public entities (Ministério da Educação, Ministério da Saúde, Ministério da Economia – Instituto do Consumidor) and, by private entities. Programs like Media Smart, and CCA (Concerned Children's advertisers) in Canada, had already an enormous success close to students since they like the theme 'media' (Austin, 2006).

This project was dedicated firstly to understand the impact that celebrity endorsers could have on children and, secondly the effectiveness of the Media Smart Program on reducing this impact.

1.1 The use of celebrities in television advertising

Portuguese children's see 2 hours and 52 minutes of television per day (Marktest, 2008), and during this time they saw unconscientiously a lot of advertisements. Those belong mainly to the food and beverage sector (Harrison and Marske, 2005; Kunkel and Gantz, 1992), which lead to the use of celebrity endorsers (Saleem, 2008). **A celebrity endorser** can be someone with public recognition or, can be a **celebrity spoke character (CSC)** like Bugs Bunny (McCracken, 1989), but both of them use that recognition to advertise, for instance, products. Nowadays, the use of celebrities spoke characters is becoming more common in advertising since animation arrests children's attention (Roberts and Pettigrew, 2007; more opinions about the use of CSC in Exhibit 2) and, consequently they are the first ones showing a more positive reaction to this phenomenon than adults (Atkin and Block, 1983).

As it is argued in the literature, **advertising is used not only to inform consumers**, but also to illustrate products or brands linked with a stimulus (Nairn and Fine, 2008). So, it is important to make our young consumers more "TV literate" (Amstrong and Brucks,

1988) through the implementation of the **media literacy training in children's lives now** (Thoman and Jolls, 2004).

1.2 Children's ability to understand Advertising

Children's ability to understand **the advertisings' techniques and messages become more efficient as they achieve a certain level of cognitive development** (McNeal, 2007; Choate 1975, Thoman and Jolls 2004). Piaget's theory is the most used framework to explain the cognitive development of a child, although there are other frameworks that can be considered (Roedder, 1981; Selman, 1980 and John, 1999). The four levels of cognitive development according to Piaget (McNeal, 2007) are:

- *Sensorimotor* (0 – 1 year old),
- *Preoperational Thought Stage* (2-7 years old),
- *Concrete Operational Stage* (7 – 11 years old),
- *Formal Operational Stage* (11 years old until adult).

In this project, we will be analyzing children from the ***Concrete Operational Stage,*** **mainly due to two reasons.** First, those children are not able to recognize, consider or question the others' opinions about one reality (Lawlor and Prothero, 2003; Selman, 1980). Therefore, they **can easily change their product preferences after seeing an advertisement** (Roedder, Stemthal, and Calder, 1983). Secondly, **at this cognitive level** (8 – 12 years old), **children** are not conscious about the effects of advertising in their consumption behavior (Livingstone and Helsper, 2006; Rozendaal, Buijzen, and Valkenburg, 2008) although, it is accepted that children fully understand advertising before they reach 12 years old (Armstrong and Brucks, 1988).

1.3 Media Smart and the development of the Critical Thinking

The **Media Smart Program** emerged to help children becoming more critic and aware of the advertising and its techniques. So, these programs are important not only because they can help children to protect themselves against the advertising (Moses and Baldwin, 2005; Thoman and Jolls's 2004), but also, because children can **develop an extraordinary capacity of critical thinking** that is extremely valuable among educators (Summers, 2005; Rogow, 2003). Thus and according to Thoman and Jolls (2004), media literacy training should start at the kindergarten in order to increase the resistance to advertising (Nairn and Fine, 2008) and, to develop certain skills that are crucial for children's lives.

Despite all the success acquired by Media Smart, the effectiveness of it seem not to be the desired one (Eagle, 2007) since there are some unenthusiastic comments from teachers, who used the program in Britain. They perceived that children have the theory but still act with "their heart"; they believe that it was difficult to children understand the entire program; and the knowledge that they acquired was not relevant for their lives (Eagle 2007). However, we cannot forget that part of the program's success depends on **parent's role in the consumer education** (Reid, 1978) since most of the times children consume media without parental supervision (Eagle, 2007; Amstrong and Brucks, 1988). So, although the program has an important role on children's lives, they are not applying the 'theory' in their daily lives.

1.4 Gender differences in Literacy Skills

It was already proved, in the literature, that there are differences in literacy skills between boys and girls. The authors defend that girls are more social oriented and, boys

are more achieved oriented. This explains why girls have more facility in reading skills and, boys in math skills (LoGerfo, Nichols and Chaplin, 2006; Marx and Roman, 2002). The reasons behind those differences are not consistent, some authors defend that those could be genetic or even biological (Benbow and Stanley, 1980) and, other defend that those differences could be learned in the society, which lead to the gender stereotypes (Bleeker and Jacobs, 2004; Good et al, 2010; Johns, Schmader, and Martens, 2005). However, recent studies reveal that **these differences had been becoming thinner with the years** (Braswell et al., 2001; Hall, Davis, Bolen, and Chia, 1999).

2. Hypotheses

As it was said before, children, from today's world, deal diary with several types of media, and accordingly to Silverblatt (2004:40) "media give a certain sense of order and stability to individual's lives". Among all types of media, Portuguese children, from 4 to 14 years old, still see television as their favorite media. Brucks et al (1988) defended that **children could not defend themselves** against advertising because they cannot perceive the selling intent and/or because they miss certain cognitive skills to understand that intent. Thus, **a person could have knowledge in a certain area but still fail the application when performing tasks in an everyday basis** (Moses and Baldwin, 2005). This implies that "children (at least 9 to 10 years old) need more than just a skeptical or critical attitude toward advertising; they (…) need a more detailed knowledge about the nature of advertising and how it works" (Brucks et al, 1988: 480-481). Moreover, Austin (2006: 543) defends that "children who receive media literacy lessons can master these skills sooner and activate them more effectively".

H1: Children that have been exposed to Media Smart Program are less influenced by television advertising with celebrity endorsers since they become more critics to it than children that have never been in contact with this type of programs.

The gender gaps seem to be an important factor when we consider the way children receive and interpret the Media Smart Program. As it was noticed before, girls have more facility in learning reading skills, and boys the math skills (LoGerfo, Nichols and Chaplin, 2006). So, as **Media Smart Program is a media literacy training program that develops the critical thinking of children**, it is more likable to say that the impact of the program would be higher on boys, since it can help them to develop more deeply their reading skills, than on girls, who have already the reading skills more developed.

H2: The impact of Media Smart Program will be higher on boys than on girls.

3. Method

3.1. Design

The research was divided into quantitative and qualitative research (figure 1) and, the used operationalization was adapted to children (Phelps and Hoy, 1996). It was followed the recommendations on the research with children of UNICEF (2002) and obtained previously the parent's consent (Exhibit 3).

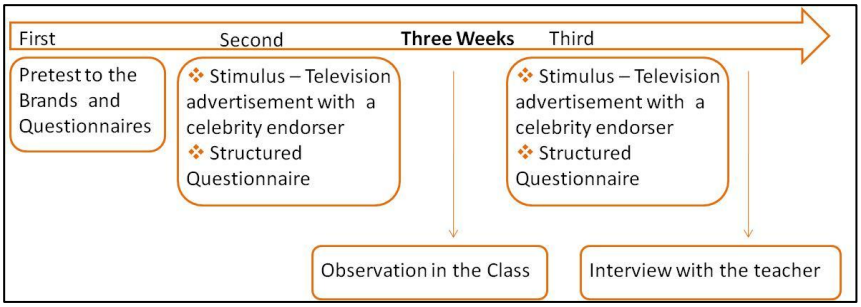


Figure 1: Flow chart

The quantitative part used questionnaires as recommended by Saleem (2007/2008); Ohanian (1991), and Reichert et al (2007) (Exhibit 4) to examine celebrity endorser's influence and children's level of literacy, before and after the Media Smart classes (only the experimental group had these classes).

The stimulus used, like in other similar experiences, was a television advertisement (Silvera and Austad, 2004; John 1999), where the category (food & beverage, more precisely cereals) was the same as in Media Smart lessons, and both used celebrity spoke characters from two different brands Chocapic Duo (first questionnaire) and, Cookie Crisp (second questionnaire).

The qualitative part of the research was designed to help the consolidation of the results. This part counted with a semi-structured interview of the teacher (Exhibit 5 - questions) and, an observation technique (Gregório, 2009).

3.2. Sample

The design of the experiment was composed by four control and, four experimental groups (with more or less 30 children in each). Those groups would have children from a public and a private school (to guarantee heterogeneity) and, they should be from two different ages (3^{rd}/4^{th} grade VS 5^{th}/6^{th} grade). Due to time restrictions and, because our main goal was to analyze the effectiveness of the Media Smart, we decided to use only one age group (3^{rd} or 4^{th} graders or, two experimental groups and two control groups). Besides that, during the contact with the schools more restrictions appeared. The private school (first to be contacted) suggested the 4^{th} grade as the best one to do the research, and this was mainly due to several restrictions such as the teachers' collaboration.

Afterwards, it was asked the same grade to the four recommended[1] public schools. However, the number of restrictions increased: teachers did not want to participate in the research (in two of the four schools); one, of the other two missing schools, was only available after the required date (incompatible with the schedules); in the last school, the teachers who agreed to participate had only 2nd and 3rd grades and, only one class per grade.

So, the final sample had, in the private school, a control and an experimental group (more or less 30 children in each), with children from the 4th grade and, in the public school, there was only one experimental group (more or less 20 children), with children from the 3rd grade. The final sample size was constituted by 68 children.

As we lacked a control group in the public school and, had two different grades in the private and public schools (experimental group), it was necessary to verify if the initial level of literacy between all these children was the same. Thus, a Chi-Square test was done between the three different groups (public experimental group, private experimental group and, private control group), with the results suggesting that the initial level of literacy was different among the children. This difference was regarding two of the four levels of literacy dimensions, the audience and the purpose, which highlighted positively the experimental group and the control groups from the private school. In the audience, children from the experimental group of the private school (64%) recognized, even after the Media Smart classes, that not everyone understands the advertisements in the same way. In the other two groups, the majority of children's answers were focused on the option "I do not know" (control group 65, 4% and

[1] Those were the schools whose directors previously agreed, with CM Oeiras, to participate in the study.

experimental group from the public school 50%). This attributed a higher level of literacy to children from the experimental group (of the private school).

In the purpose of the advertisement, children's answers, from the control group, were mainly divided into three options "to inform about a new product", "to ask my parents to buy the product" and "I do not know", this reveals some literacy knowledge since children from the other two groups pointed, for instance, the option "ask to my parents a dog" as a purpose for the advertisement. Thus, we must have these differences in level of literacy in mind while analyzing the further results.

Two other restrictions occurred in the experiment, regarding the time between the first and the second evaluations and, due to of the delay in the process of the public school:

- Media Smart lessons in the public school were taught in a period of two weeks (3 weeks were used in the private school); and
- The teacher from the public school taught only the first recommended[2] topic while the other teacher (from the private school) taught all of them.

3.3 Variables

In this part of the project, we would identify and explain the variables used to measure each of the mechanisms (questionnaires, semi-structured interviews and observation in class) used during the research.

Through the **questionnaires**, we wanted to analyze two main topics, which were the influence that celebrity endorsers, more specifically celebrity spoke characters, had on children and, the children's level of literacy.

[2] Module 1, Topic 1 "Advertising and you"; Module 2, Topic 7 "Selling food with favorite characters and Topic 8 "Celebrities selling food and drink"

In order to analyze the influence of celebrity endorsers, the literature suggests several variables such as credible source (Erdogan, 1999), perceptions of the advertisement's value (Erdogan, 1999), purchase intention (Ohanian, 1991) brand liking (Roedder, Stemthal and Calder, 1983), attitude toward the advertisement (Atkin and Block, 1983), etc. The most used are the credible source, purchase intention, and brand liking, which in adults' literature have 7 point likert scales. These concepts were easily perceived by children[3] but the operationalization required that **all the scales were reduced to a 5 point face likert scale** (Roedder, Sternthal, and Calder, 1983).

3.2.1 Credible Source

Several authors consider source credibility as the most important variable that might be inherent to a celebrity endorser. To measure it, researchers use several dimensions like trustworthiness (Erdogan, 1999), expertness (Applbaum and Anatol, 1972), objectivity (Whitehead, 1968), attractiveness (Goldsmith et al, 2000), among others. However, there are two crucial ones, trustworthiness and expertness, which are always used by researchers (Pornpitakpan, 2003). In this study, the variable expertness was not considered since our target cannot easily perceive its meaning, as the child psychologist confirmed.

In order to guarantee a more reliable study, researchers usually add more dimensions to those ones (Ohanian, 1991; Friedman and Friedman, 1979). Therefore, and based on Frieden (1984), Ohanian, (1991), McGuire (1958) and, on Goldsmith et al (2000), the variables chosen were: Trustworthiness, and Attractiveness.

- **Trustworthiness** – "Depends on the target audience perceptions" and, it was strongly related with "honesty, integrity and believability of the endorser"

[3] According to a psychology specialist with whom we validate this procedure.

(Erdogan, 1999:297). This means that the celebrity endorser might be a trustful source of information (Ohanian, 1991; Friedman and Friedman, 1979). For children, the perceived trustfulness depends only on their age[4] (Greenberg, Fazal and Wober, 1986). To measure the celebrity endorser's trustworthiness, researchers used several adjectives in order to classify the endorser (Atkin and Block, 1983), although to be perceptible for children it was asked a question similar to this: Acreditas naquilo que o/a (nome da celebridade) está a dizer? (Do you trust/believe in what (name of the celebrity) is saying?). Afterwards, it was used a Likert scale, from 'I really trust' to 'I don't really trust'.

- **Attractiveness** – would be associated, in this project, only with physical attractiveness (but it can also be associated with celebrity's lifestyles or personality properties) since it was used, during the research, a celebrity spoke character (Goldsmith et al, 2000; Erdogan, 1999; McCracken, 1989), who could easily change people's beliefs (Ohanian, 1991; Chaiken, 1979; Dion and Berscheid, 1972; Joseph, 1982). To measure the attractiveness of a celebrity endorser, it was asked children to rate from 'muito bonita/o' (really attractive) to 'muito feia/o' (really unattractive) the endorser, through a likert scale (Atkin and Block, 1983 and Erdogan, 1999).

3.2.2 Purchase Intention

Purchase intention was defined as the probability of an individual purchase a product or not (Lutz, Mackenzie, and Belch, 1983). In the case of children, the purchase intention was related with how probable would be for them to buy or ask someone else to buy something (Ward, Wackman, and Wartella, 1977). In the literature, there were several

[4] So, as children grow as their perception becomes clearer.

dimensions that influence customer's purchase intention like the level of celebrity endorser's credibility (Kamins et al, 1989); or the brand equity[5]. To measure Purchase Intention, it was taken into account two dimensions: when children buy or ask their parents to buy the product and, when children want to consume the product (Mallinckrodt and Mizerski, 2007). Children would answer, in a likert scale, the probability to buy a certain product (Friedman and Friedman, 1979) and, the probability to consume that product (Phelps and Hoy, 1996).

3.2.3 Brand Liking (or the attitude of children toward the Brand)

Brand Liking was the response, during the exposure, to an advertising stimulus (Phelps and Hoy, 1996; MacKenzie and Lutz, 1989). Previous researchers used a seven point scale to measure this variable and, a bipolar evaluative scale with the adjectives: good-bad, dislike very much-like very much, pleasant- unpleasant (Gardner, 1985). Though, to be adaptable to children it was asked if they like the brand or not, where the answer is given in a likert scale (Mitchell and Olson, 1981; and Roedder, Stemthal and Calder, 1983; Phelps and Hoy, 1996).

In order to analyze the second topic, the children's level of literacy, it was used the 5 Key Questions defined by the *CML MediaLit Kit*, the Center for Media Literacy in United States (Thoman and Jolls, 2004). Those questions test if people know how to identify: the author, format, audience, content, and purpose of an advertisement.

From the initial *5 Key Questions* only four of them were applied to this study (Exhibit 6 – content of the questions) because the psychologist believed that children would have

[5] It is related with the opinions about the brand that a consumer has; source: Plassmann, Ambler, Braeutigam and Kenning (2007).

difficulties in understanding the correct meaning of the fourth question and, therefore this could induce bias in the answers. Thus, the final questions were:

1. "Quem é que achas que fez este anúncio?", translating **"Who made this advertisement?"** (Structured through a multiple-choice question, with six options);
2. "Que coisas no anúncio é que foram utilizadas para chamar a tua atenção?" translating **"Which mechanisms were used in order to catch your attention?"** (structured through a multiple-choice question, with eight options);
3. "Achas que todas as outras pessoas percebem o anúncio da mesma maneira que tu? (exemplos de outras pessoas: pais, irmãos mais velhos, irmãos mais novos, tios, primos, amigos da escola) " translating **"Do you believe that everyone understands the advertisement in the same way as you?** (example of everyone: parents, brothers and sisters, uncles, cousins, friends) (structured through a dichotomous question);
4. "Porque é que achas que o anúncio foi criado?", translating **"Why this advertisement was created?"** (Structured through a multiple-choice question, with six options)

Through the **semi-structured interview**, the second used mechanism, we tried not only to perceive teacher's opinion about the program and the importance that it could have on children's life but mostly her opinion about our hypotheses.

In the last mechanism, **the observation in class**, the analyzed variables were related with children's reaction to the program and to the theme (advertising). Thus, those

variables were the children's level of attention, participation, motivation, possible doubts and, children's level of disinterest.

4. Results

4.1 Hypothesis Testing

In this part of the project, the gathered data, from the three mechanisms used during the research, was compiled, which means that all the information would be used to prove our two hypotheses.

Although the statistical tests were performed (Chi-Square testes and Mann- Whitney tests), they were not capable to prove our hypotheses. Thus, it was agreed that only descriptive statistics would be used during the analysis.

The hypothesis testing would compare the control and experimental groups and, when it was reasonable the three groups (the experimental group from the private school, the control group from the private school and, the experimental group from the public school) would be analyzed individually.

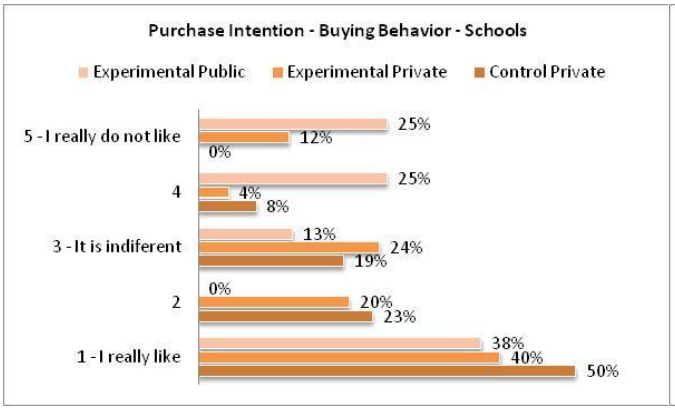
H1: *Children that have been exposed to Media Smart Program are less influenced by television advertising with celebrity endorsers since they become more critics to it than children that have never been in contact with this type of programs.*

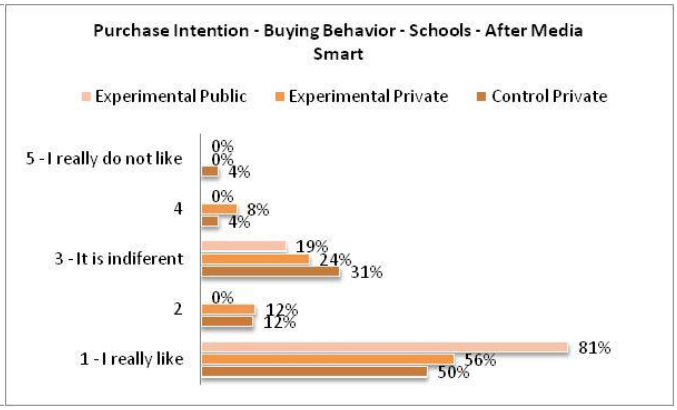
During the research children's level of motivation and attention, in the Media Smart classes, was evident, and thus the interest for this theme was perceptible (Observed Parameters – Exhibit 7).

Regarding the first quantitative variable, it was possible to notice, in both groups (experimental and control), that the celebrity's endorsers influence increase concerning certain variables but decrease in other ones.

In the variables **Brand Liking and Purchase Intention (consumption and buying behavior)**, a huge difference, between the control and experimental groups, was obvious before and after the stimulus (advertisement). The results suggested that after the advertisement, but before the Media Smart classes, the brand liking and the desire to consume or buy the product increased exponentially. Therefore, it was interesting to highlight a student's comment, from the control group, where he said that, when he saw those types of advertisements, he become always hungry and, want to eat almost immediately the product. This showed us, how important could be this type of programs in children's lives.

In the Purchase Intention, the experimental group had a higher increase in the buying and consumption behavior than the control group. So, the results suggested a rejection of the first hypothesis. Due to of that, it was examined the three different groups separately.



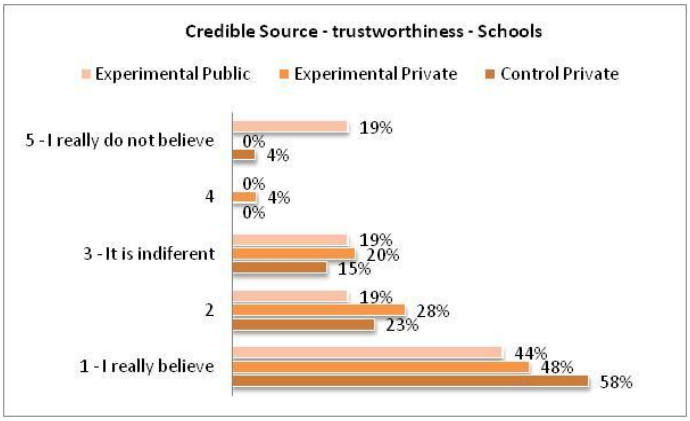


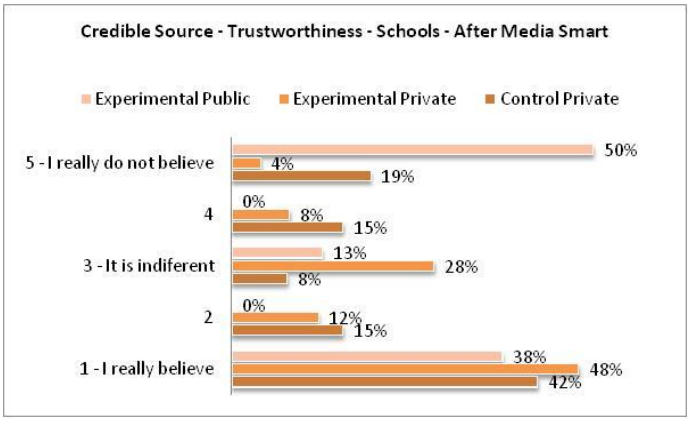
Through the graphics it was visible the increase, in both experimental groups, of the desire to buy the product but it was also likeable to say that the percentage of children,

who wants to buy the product duplicate in the public school. This could be explained through the few Media Smart classes that those children had been exposed.

In the variables Brand Liking and Purchase Intention, it was guaranteed that both brands, Chocapic Duo and Cookie Crisp, had the same market share in order to assure that there was no bias between the brands. However, the Chocapic Duo is a sub-brand of the market leader, Chocapic. Therefore, it was likeable to say that the brand liking and the purchase intention could be influenced by that fact, and so the comparison between the two brands might be unreasonable.

The last variable was the **credible source**, where it was analyzed the trustworthiness and attractiveness of the celebrity spoke endorser. Concerning the trustworthiness, in both groups the percentage of children who believed in the celebrity spoke character decrease after the Media Smart classes. However, this decrease was more significant in the control group than in the experimental group. Due to of that it was performed an examination of three groups.





The differences between the two experimental groups are enormous. In one hand, the percentage of children, from the private school, who believe in the celebrity spoke

character, did not change after the Media Smart classes (48%). In other hand, the percentage of children, from the public school, that did not believe in the celebrity spoke character increase a lot (31%).

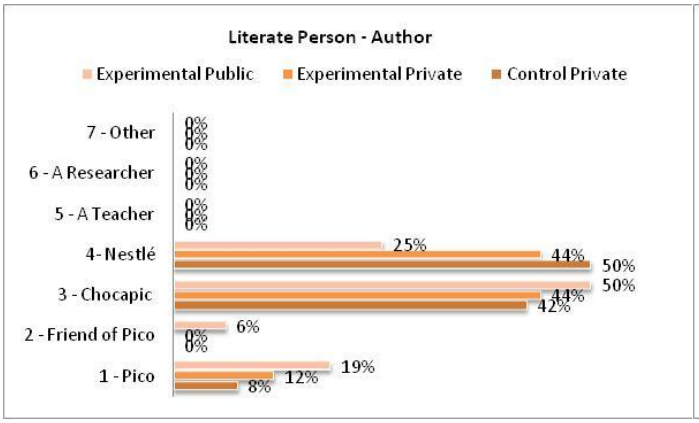
In the attractiveness of the celebrity spoke character the children's answers seem to differ from the control and the experimental group. Although in the control group the percentage of students who believed that the celebrity spoke character was attractive increase after the Media Smart classes (23% to 27%), in the experimental group this percentage decreased from 44% to 32%.

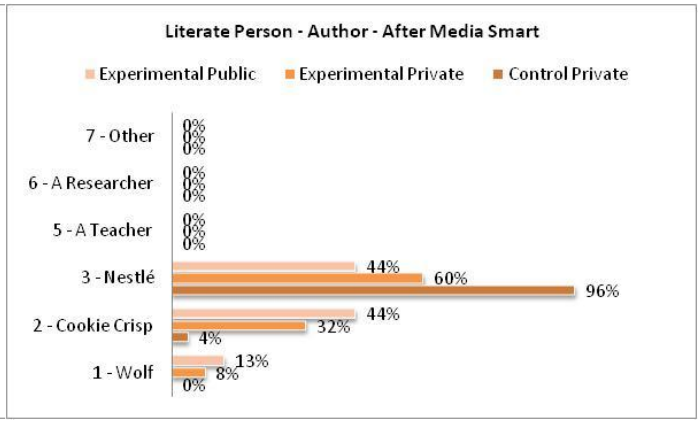
To conclude, the results suggested that children, who had been exposed to the Media Smart lessons, in some variables become less influenced by advertisements with celebrity spoke characters but, in other ones the results suggested the opposite. This was aligned with teachers' affirmations that **children's manifestation was merely verbal**.

In order to evaluate the children's level of literacy, it was examined the ability that they had to identify the author, the content, the audience and the purpose of an advertisement.

In order to identify the **Author** of the advertisements, children's answers were mainly divided into two possible authors, Nestlé and Chocapic/Cookie Crisp. Each option represents a certain level of literacy since in reality is Nestlé who financed Chocapic/Cookie Crisp's advertisements. Thus, children who chose Nestlé as the author of the advertisement had a higher level of literacy than the ones who answered Chocapic/Cookie Crisp.

The results suggested an increase in the children's level of literacy in both groups (experimental and control) after the Media Smart classes but the control group presented a higher increase than the experimental group. So, it was justifiable a deep analysis of the three groups.





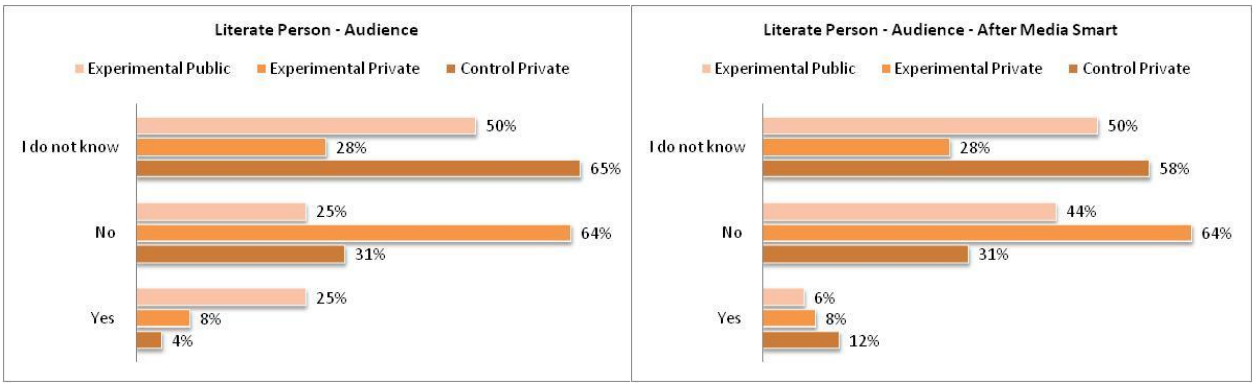
Through the graphics it was possible to notice that children from the private school become more literate than children from the public school since 60% of children's answers, after the Media Smart classes, were related to the Nestlé as author of the advertisement. This difference in the level of literacy could be justified with the lack of Media Smart classes or even with the difference in children's cognitive level.

In the **Content** of the advertisement, which was related with the mechanisms used to catch children's attention during the advertisement, the experimental group showed a clearly evolution in the understanding about this topic.

Before the Media Smart classes, the preferred mechanism chose by both groups was the "adventure that the celebrity spoke character had during the advertisement" (28% in the control group and, 23% in the experimental group). However, after the Media Smart classes, although the control group maintained its choice, the experimental group chose the colors and the celebrity spoke character as the main mechanisms used to catch their

attention (19% in each mechanism). This suggested an evolution in children's level of literacy.

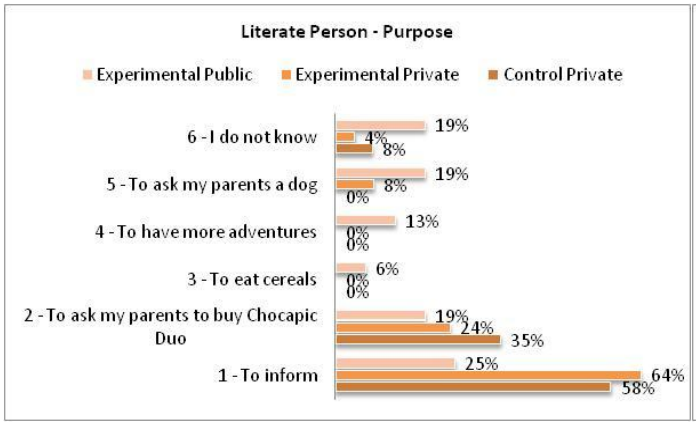
In the **Audience** of the advertisement, children from the experimental group showed certain knowledge about it. In the control group, the majority of children did not know if everyone understands or not the advertisements in the same way. However, this percentage decreased after the Media Smart classes from 65% to 58%. In other hand, children from the experimental group perceived since the beginning, before the Media Smart classes, that everyone did not understand the advertisements in the same way. This was linked with one of the skills that teacher from the private school saw their students developing, which was the **critical thinking** (interview transcriptions, Exhibit 8)**.** This means that children could see the reality in other perspectives since they could put themselves in the 'advertiser's shoes' and identify, for instance, the target population of an advertisement and, consequently justify the use of a certain celebrity endorser. Therefore, in this part it was interesting to examine the differences among the three groups.

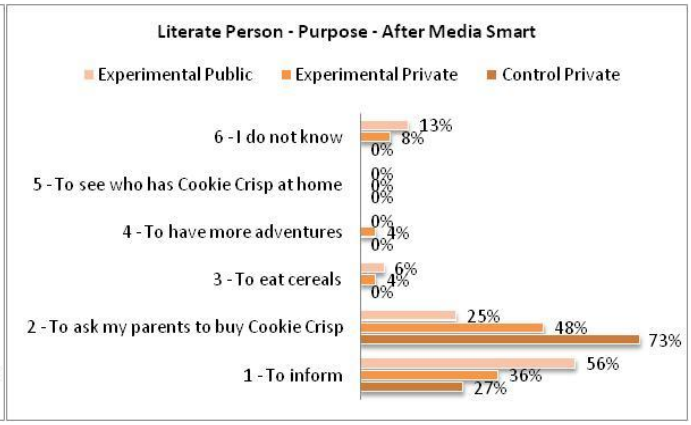


As it was visible through the graphics, 50% of children, from the public school, answered before and after the Media Smart classes that they did not know if everyone understands the advertisements in the same way. However, the majority of children,

from the private school, even before the Media Smart classes, noticed that not everyone understands the advertisements in the same way. This difference could be justified through the cognitive differences or, through the lack of Media Smart classes (as pointed before) that children from the public school had.

The last dimension of the Media Literacy was the **Purpose** of an advertisement. Attached with this dimension, teachers revealed that children developed another important skill, the **observation capacity** since they were able to identify the different types of advertisement (to inform, to force to buy, to express an idea) and, the different channels used in advertising (advertisements, outdoors, etc). In the Media Smart class of the public school, an exercise was done (Exhibit 9 - exercise) and, some of the children's difficulties emerged. One of them was directly related with the main purpose (of an advertisement) pointed out by children, before the Media Smart classes, which was "to inform about a new product" (58% in the control group and, 49% in the experimental group). After the Media Smart classes, the percentage of children who gave the same answer, in the control and experimental groups, decreased, and at that time the main purpose identified was related with the selling intent of the advertisement. However, the control group showed a higher decrease than the experimental group, which led us to examine the groups separately.





The slightly decrease in the experimental group could be explained through the increase of the percentage of children's answers regarding the option "to inform" in the public school. This means that although a significant part of the children changed their answer to the selling intent of the advertisement, another part selected the option to inform as the main purpose of the advertisement.

T**he results suggested that children from the experimental group become more aware of certain techniques used in advertisements**, and less influenced, in certain variables, by advertisements with celebrity endorsers. However, **there are some reservations in the successful application of the tools during children's daily lives**. That was reinforced with a comment from a student, who said that he was already capable to recognize the advertisements' selling intent but admitted that he was still influenced by advertisements with celebrity spoke characters. In reality this also happens with adults, who could clearly indentify the main purpose of an advertisement (selling intent) but, still are influenced by them.

Thus the data recommended that the first hypothesis should be rejected.

H2: *The impact of Media Smart Program will be higher on boys than on girls.*

During the observation in class, there was no evidence that boys had more difficulties than girls in solving the Media Smart activities, and the data from the questionnaires and from the interviews also suggested that.

Through the four dimensions of the level of literacy, the difference between boys and girls was extremely thin. The only variable where girls surpass the boys was the

audience (third dimension of the level of literacy), where girls even if before the Media Smart classes had a clear notion that not everyone understands the advertisements in the same way. In the other variables, boys' level of literacy seemed to be superior to girls' level of literacy but always with **thin differences**.

During the interview, the teacher from the private school believed that at the beginning, girls had more facility in understanding the themes and activities developed in class. However, boys after understanding the tools of the program (acquire more skills in this area) become equal to girls and, even boys' participation surpass girls' participation. The same opinion was not shared by the teacher from the public school, who did not notice this difference at all.

The data suggested that the impact of the Media Smart Program was not higher on boys than on girls, which recommended the rejection of the second hypothesis.

5. Conclusion

Although children from the experimental group started showing a **slight** capacity of critical thinking and observation, this was not fully applied during the research and, the difference between genders seemed not to be noticeable during the research.

The hypotheses were not statistically proved even though the differences in children's answers were visible through the graphs. Nevertheless, teachers believe that this program is crucial for children's development as conscious consumers, and therefore they will continue to use it with the actual group, and with future groups.

To conclude, it was possible to notice that **children did not have enough time to assimilate all the concepts learned in the Media Smart Classes,** which could explain the unsuccessful prove of the hypotheses.

6. Limitations and Indications for Future Research

6.1 - Limitations

- ✓ The small **sample size** of only 71 children reduces the power of its conclusions.
- ✓ The **experimental group was larger than the control group**, which lead to the impossibility to test different impacts on private or public school (two subgroups in the experimental conditions and, only one control group)
- ✓ Although it was requested to schools two classes from the 4th grade, the public school could not fulfill this requirement, and therefore **the sample was constituted with children from different grades** (4th grade in the private experimental and control groups and, 3rd in the public experimental group).
- ✓ **The time between the two moments of the research was not the same** for the experimental group from the private school (3 weeks) and, for the experimental group from public school (2 weeks).
- ✓ There were differences in the topics taught to both experimental groups. In the experimental group from the public school **the recommended topics were not fully taught.** However, in the experimental group from the private school the recommended topics were fully taught
- ✓ The examples given to children, during the Media Smart Program, cover essentially the food and beverage category the same category used during the research, so the **results may be limited to this category**.

- ✓ The **time between the two research moments was not enough to make children, in the second moment, forget the first one.** During the second moment of the research, it was noticeable that some children did not forget the first one.
- ✓ The use of a **natural stimulus**, an advertisement from an existing/real brand, implied already a certain level of brand awareness and, consequently brand recognition which compromised the results since children have already a specific connection with the brands.

6.2 – Indications for Future Research

- ✓ Future researchers could work with **other types of categories** instead of food and beverage category.
- ✓ **The time between the two moments of the research should be increased** in order to perceive the evolution of children as responsible consumers, and to guarantee that children forget the first moment of the research.
- ✓ In the future, could be also interesting the use of **fictitious stimulus**, through the creation of an advertisement, in order to avoid the pre-established connection between the brands and the children
- ✓ Lastly, the examination of the contrast between children's reaction from **different cognitive levels** could be also another interesting theme to explore.

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